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MEMORANDUM

To:	Valmichael Leos and Anne Foster U.S. Environmental Protection Agency	**Date:**	May 4, 2015
From:	John Laplante, John Verduin, Wendell Mears, and David Keith, Anchor QEA	**Project:**	090557-01
Cc:	Gary Miller, USEPA Philip Slowiak, IP David Moreira, MIMC		
Re:	Post-TCRA Semi-Annual Inspection Report – January/April 2015 Inspection		

Introduction

This document reports the results of the recent inspection of the armored cap cover, fencing, and signage installed for the Time Critical Removal Action (TCRA) at the San Jacinto River Waste Pits Superfund Site (TCRA Site). The inspection, performed by International Paper Company (IP) and McGinnes Industrial Maintenance Corporation (MIMC), collectively Respondents), commenced in January 2015 but the completion of the hydrographic survey was delayed until April 2015 due to seasonal low tides and northerly fronts that prevented water access over the cap along the east edge and northeast quadrant of the TCRA Site. These areas were unsafe to walk on in order to perform the survey due to depositional muds, algae, and shellfish growth. Surveying by water was not possible because of the persistent low tide conditions that occurred during the latter part of January through March 2015. The Respondents' Project Coordinator notified Valmichael Leos of these conditions on January 30, 2015, and as agreed to with Mr. Leos, the survey was completed at the first available date where it could be done in a safe manner, which was April 8, 2015.

Background

The TCRA was implemented by Respondents under an Administrative Settlement Agreement and Order on Consent (AOC) with the U.S. Environmental Protection Agency (USEPA) – Docket No. 06-12-10, effective May 17, 2010. A full description of the TCRA implementation is provided in the associated project documentation:

- Removal Action Work Plan (RAWP; Anchor QEA 2010, 2011)
- Revised Draft Final Removal Action Completion Report[1] (RACR; Anchor QEA 2012)

The inspection summarized in this report was conducted in accordance with the schedule established in the Operations, Monitoring, and Maintenance (OMM) Plan (Appendix N of the RACR – Anchor QEA 2012)[2]. The OMM Plan specifies the timing, pertinent items, tolerances, and procedures for inspection, maintenance, and repair of the armored cap protective cover, fencing, and signage installed for the TCRA Site (Figure 1).

Monitoring

The topographic surveys were conducted on January 6, 7, and 8, 2015. The hydrographic surveys were conducted on January 21 and April 8, 2015. Due to a series of frontal events that caused below normal tide levels, the hydrographic survey could not be completed for the east edge and a large part of the northeast quadrant of the TCRA Site in January 2015. Daytime water depths sufficient to complete the hydrographic surveys were not available until early April, 2015. The inspection included evaluation of the TCRA elements referenced below:

- Visual inspection of the security fence and signage surrounding the TCRA Site.
- Visual inspection of the armored cap located above the water surface.
- Visual confirmation that waste materials are not being actively eroded into the San Jacinto River.
- Collecting hydrographic and topographic survey data of the armored cap to compare the current elevations with the survey performed during the July 2014 inspection.

[1] David Keith, Respondents' Project Coordinator, received a RACR (in the form issued by USEPA) from Valmichael Leos via email on August 15, 2012; however, the appendices to the RACR including the OMM Plan, were not provided to Dr. Keith as part of the document. The OMM Plan had been previously approved by USEPA (in an email from Mr. Leos dated January 18, 2012) and is assumed to remain unchanged. Respondents reserve all rights related to the changes made by USEPA to the Revised Draft Final RACR, submitted by Respondents to USEPA on March 9, 2012.

[2] The OMM Plan was attached to the Draft Final RACR, submitted to USEPA on November 22, 2011, and authorization to implement the OMM Plan was contained in an email from USEPA dated January 18, 2012. The OMM Plan was also attached as an appendix to the Revised Draft Final RACR submitted to USEPA on March 9, 2012.

- Manual probing of armored cap thickness at contiguous areas identified by the monitoring survey as more than 6 inches lower in elevation than in the July 2014 inspection survey.

Visual Inspection

The visual inspection included observing the current conditions of the perimeter fence, warning signs, and the portion of the armored cap visible above the water line of the San Jacinto River. Figure 2 displays the location of the perimeter fence and the stand-alone signs around the armored cap (additional signs are affixed directly onto the perimeter fence). The visual inspection was performed between January 8 and January 14, 2015. Photographs of conditions observed during the visual inspection are provided in Appendix A (Figures A-1 to A-5). Portions of the Eastern Cell armored cap that are normally covered, were exposed during the visual inspection due to the lower water levels. All visible portions of the armored cap were observed to be intact; there was no observed evidence of materials being eroded into the San Jacinto River. In addition, no damage to on-site signage was noted. A summary of each facet of the visual inspection is provided in the following sections.

Armored Cap

Photographs of the armored cap from the inspection event are provided in Appendix A (see photographs 2 through 12 and 19 through 20). All of the visible portions of the armored cap were observed to be intact, and no movement or erosion of waste materials into the San Jacinto River was observed at any location during the visual inspection.

Perimeter Fencing

The perimeter fencing (Figure 2) on the west and east banks of the San Jacinto River was visually inspected for breaches or other signs of damage on January 8, 2015. No breaches or other signs of fence damage were observed during the inspection for any of the three sections of the fence: the east bank, the west bank on the north side of I-10, or the west bank on the south side of I-10. For examples, see Photographs 14 through 18 in Appendix A.

The portion of the fence installed along the south boundary of the San Jacinto River Fleet (SJRF) property is not included in the fencing inspection, as the SJRF property is currently occupied by an active facility that conducts daily security checks, as required by the U.S.

Coast Guard and Transportation Security Administration, for an active maritime fleeting area.

In the east bank area south of I-10, there was evidence of continued access and construction for offloading per the Linde agreement with the USEPA, TxDOT, and the Respondents. At the time of inspection the east and west bank gates were secured.

Signage

"Danger" and "No Trespassing" signs are posted at regular intervals on the perimeter fencing surrounding the Site. For examples, see Photographs 14 and 16 through 18 in Appendix A. These signs were observed to be in place during the January 8, 2015 inspection.

A total of fifteen "Danger" and "No Trespassing" signs were installed at the TCRA Site around the perimeter of the land portion of the TCRA Site; the signs are mounted on steel posts and set in concrete pads. For examples, see Photographs 2, 4, 6 through 7, and 9 through 12 in Appendix A. These signs were observed to be in place during the visual inspection. These signs are intended to face the San Jacinto River to deter water-based entry to the TCRA Site. Several of these signs had rotated out of proper alignment due to the wind. The affected signs were re-aligned to the intended viewing perspective, and the screws fastening the signs to the steel posts were tightened.

Three USEPA Public Notice signs are present around the TCRA Site located: 1) near the gate entry point for the perimeter fence north of I-10; 2) near a gate entry point south of I-10; and 3) at the end of the TxDOT right-of-way north of I-10 near the San Jacinto River. For examples, see Photographs 1, 5, and 15 in Appendix A. These three signs were observed to be in place and undamaged during the January 8, 2015 inspection.

Signage on all locked gates reminds entrants to "daisy chain" the locks properly prior to leaving the TCRA Site. These signs were observed to be in place and undamaged.

Table 1 summarizes the condition of the TCRA Site signage described in this section.

Table 1

TCRA Perimeter Fencing and Sign Inspection Punch List

Task	Status	
	Completed	Date
Perimeter Fence Visually inspect the perimeter fencing on the east and west sides of the San Jacinto River.	Yes	1/8/2015
"Danger" and "No Trespassing" Signs Visually inspect the 15 signs to verify that they remain in place.	Yes	1/8/2015
USEPA Public Notice Signs Visually inspect the 3 signs to verify that they remain in place.	Yes	1/8/2015
Daisy Chain Signs Visually inspect the 2 signs to verify that they remain in place.	Yes	1/8/2015

Surveys

Portions of the armored cap above the water surface or at a water depth too shallow to access by boat were surveyed using land-based topographic survey techniques. A hydrographic survey was performed for the portions of the armored cap below the water surface and accessible by boat. The surveyor followed the track line spacing, measurement intervals, and accuracy requirements detailed in the OMM Plan. A large area in the northeast quadrant and along the eastern edge could not be accessed due to seasonal and extreme low tides in January, February, and March 2015. These areas were surveyed ahead of a spring frontal system and higher tide on April 8, 2015 to complete the survey inspection.

Survey Tolerance Requirements

The OMM Plan requires that each survey be compared with the prior completed survey using the following criteria:

1. Areas with elevations that are within 6 inches of the previous survey require no action.
2. Contiguous areas with elevation changes exceeding plus or minus 6 inches triggers a review of the survey benchmarks for accuracy or movement.

3. Areas where surveyed elevations are 6 inches higher or lower than the prior survey for a contiguous area larger than 30 feet by 30 feet will require probing to measure the cap thickness.

Survey Results

The survey data from the January and April 2015 surveys and the July 2014 inspection survey were compared to evaluate the differences in the top of the armored cap elevation. These differences are shaded and shown in Figure 3. The survey results indicate continued sedimentation/deposition on the surface of the armored cap in submerged areas.

Manual probing of armored cap thickness is required at areas identified by the topographic or hydrographic surveys as more than 6 inches lower in elevation than during the prior survey over contiguous areas of 30 feet by 30 feet. When the 2015 and July 2014 surveys were compared, the results indicated that there were no areas that met the manual probing requirement. Therefore, no probing was conducted as part of the January/April 2015 inspection.

The small areas identified as increases and decreases in elevation can be attributed to the horizontal and vertical limitations of the survey, minor shifts in track line location from the baseline survey, and elevation data recorded in the crevices between rock surfaces or atop shellfish growth. The potential for these types of variations between the two datasets to exist was confirmed by the surveyor after reviewing the data collected during this inspection.

Repairs to TCRA Construction Elements

No TCRA construction elements were identified as deficient or damaged during this inspection event. No maintenance was required to the TCRA armored cap in response to the January/April 2015 inspection.

Inspection Summary

There were no damage or deficiencies identified by the visual, topographic or hydrographic surveys. The visual inspection event between January 6 and January 14, 2015 did not identify damaged or otherwise deficient areas in the perimeter fence or signage. The armored cap remains intact.

List of Figures

List of Appendices

References

Anchor QEA, LLC (Anchor QEA), 2010. *Removal Action Work Plan*, San Jacinto River Waste Pits Superfund Site. Prepared for U.S. Environmental Protection Agency (USEPA) Region 6 on behalf of McGinnes Industrial Maintenance Corporation and International Paper Company. November 2010.

Anchor QEA, 2011. *Removal Action Work Plan*, San Jacinto River Waste Pits Superfund Site. Prepared for U.S. Environmental Protection Agency (USEPA) Region 6 on behalf of McGinnes Industrial Maintenance Corporation and International Paper Company. Revised February 2011.

Anchor QEA, 2012. *Revised Draft Final Removal Action Completion Report*, San Jacinto River Waste Pits Superfund Site. Prepared for McGinnes Industrial Maintenance Corporation, International Paper Company, and U.S. Environmental Protection Agency (USEPA) Region 6. Revised March 2012.

USEPA, 2010. *Administrative Settlement Agreement and Order on Consent for Removal Action*. U.S. Environmental Protection Agency Region 6 CERCLA Docket No. 06-03-10. In the matter of: San Jacinto River Waste Pits Superfund Site Pasadena, Harris County, Texas. International Paper Company & McGinnes Industrial Management Corporation, Respondents.

FIGURES

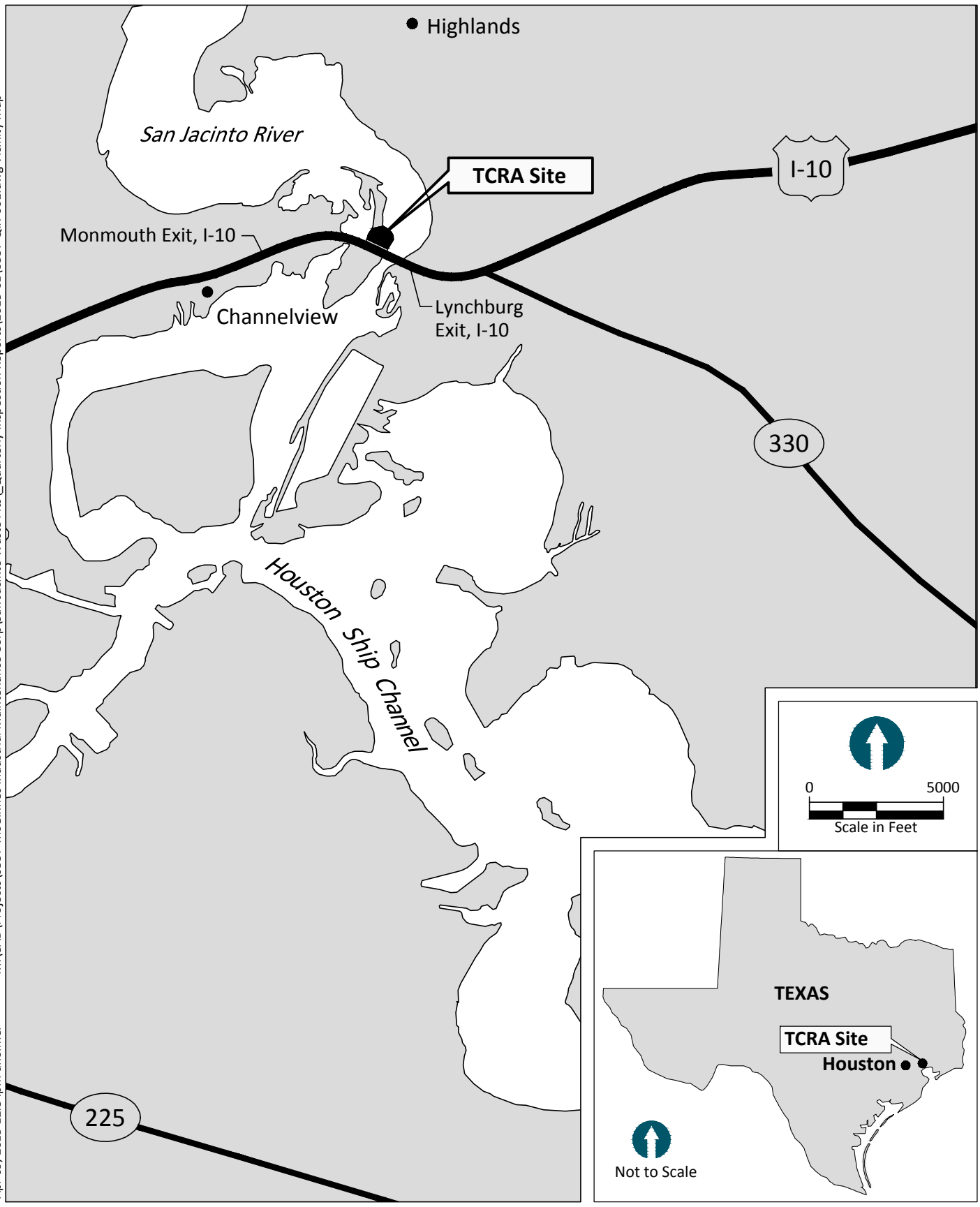

Figure 1
Vicinity Map
Post TCRA Semi-Annual Inspection (January 2015)
San Jacinto River Waste Pits Superfund Site

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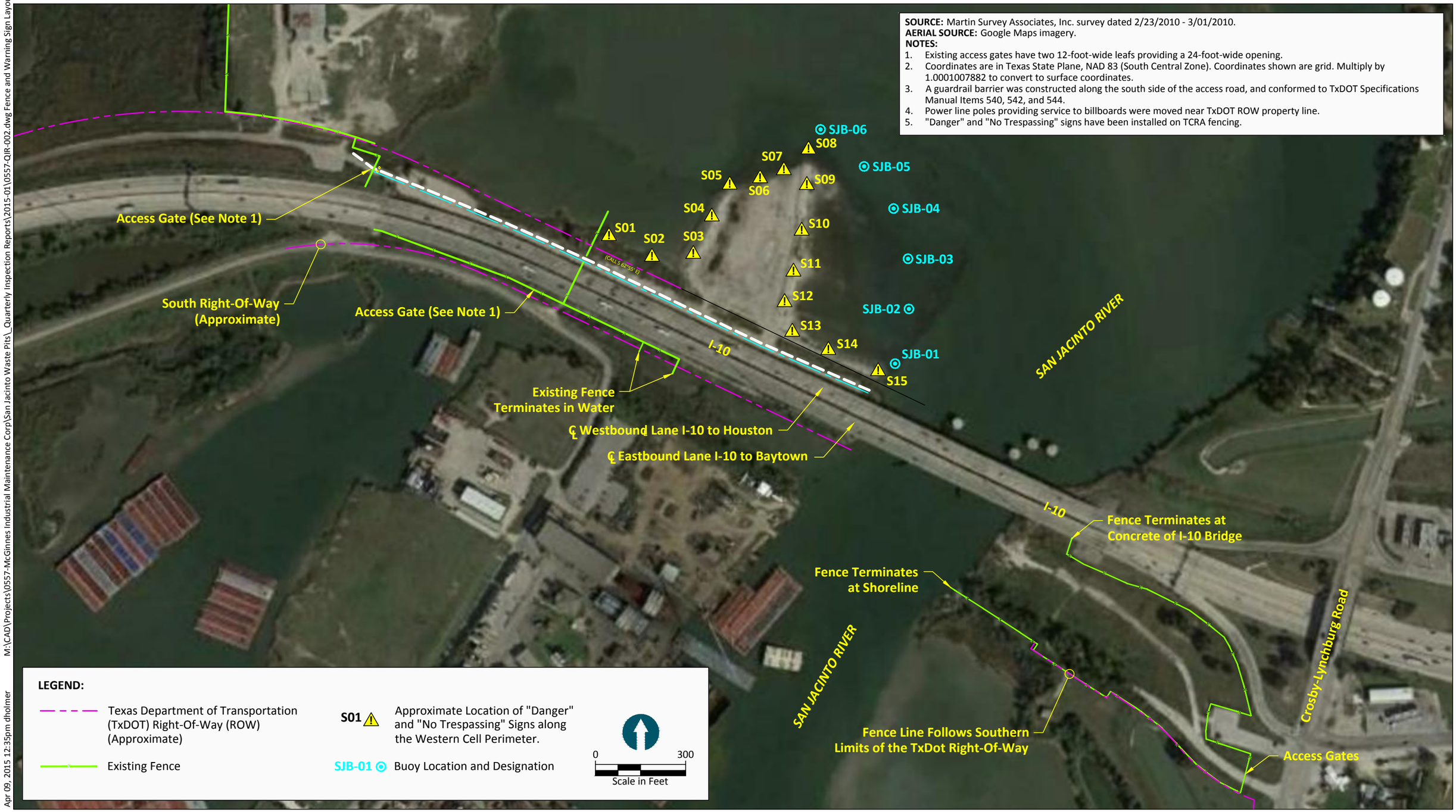

M:\CAD\Projects\0557-McGinnes Industrial Maintenance Corp\San Jacinto Waste Pits_Quarterly Inspection Reports\2015-01\0557-QIR-002.dwg Fence and Warning Sign Layout
Apr 09, 2015 12:35pm dholmer

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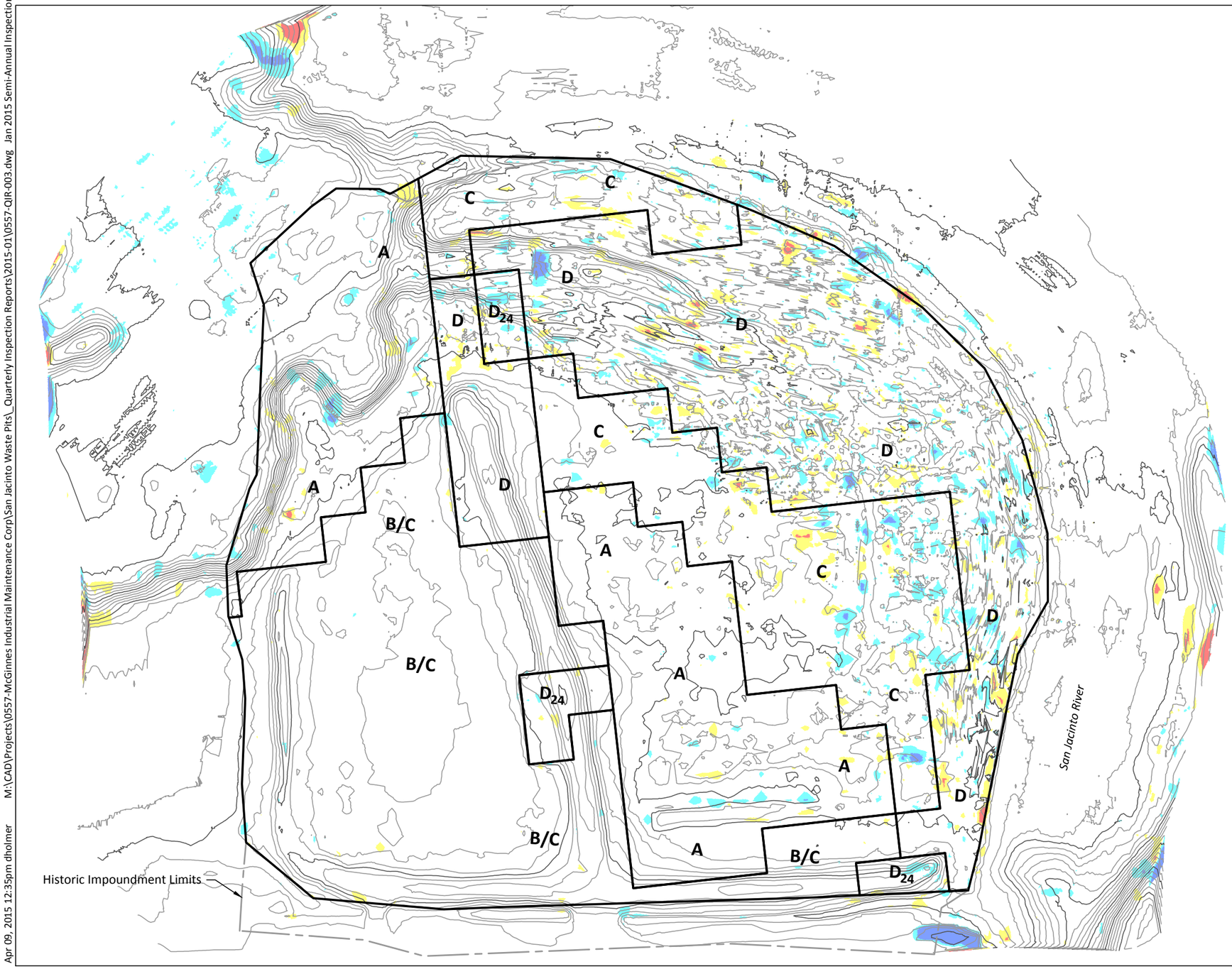
Figure 2
Fence and Warning Sign Layout
Post TCRA Semi-Annual Inspection (January 2015)
San Jacinto River Waste Pits Superfund Site



LEGEND:

- January 2015 Bathymetric and Topographic Contours (1 Foot Interval)
- B/C — Armored Cap Type and Boundary
- Historic Impoundment Limits
- > 1.0 Foot Increase
- 0.5 Foot Increase to 1.0 Foot Increase
- 0.5 Foot Increase to 0.5 Foot Decrease
- 0.5 Foot Decrease to 1.0 Foot Decrease
- > 1.0 Foot Decrease
- Example 30'x30' Area

SOURCE: Drawing prepared from surveys provided by Hydrographic Consultants dated July 2014 and January 2015 and supplemented with additional survey data collected on April 8, 2015.
HORIZONTAL DATUM: Texas State Plane South Central, NAD83, U.S. Feet.
VERTICAL DATUM: NAVD 88.

0 120
Scale in Feet

Apr 09, 2015 12:35pm dholmer M:\CAD\Projects\0557-McGinnes Industrial Maintenance Corp\San Jacinto Waste Pits_Quarterly Inspection Reports\2015-01\0557-QIR-003.dwg Jan 2015 Semi-Annual Inspection

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Figure 3
January 2015 Semi-Annual Inspection Survey
Post TCRA Semi-Annual Inspection (January 2015)
San Jacinto River Waste Pits Superfund Site

APPENDIX A
INSPECTION PHOTOGRAPHIC LOG

Photograph 01: USEPA Public Notice Sign located outside the access gate north of I-10 (view southeast)

Photograph 02: Warning signs and vegetation along southern berm (view east)

Photograph 03: Eastern Cell as viewed from intersection of southern and central berms (view northeast)

Photograph 04: Warning signs along perimeter and interior of Western Cell (view northwest)

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Figure A-1
Site Photographs
Post-TCRA Semi-Annual Inspection Report (January 2015)
San Jacinto River Waste Pits Superfund Site

Photograph 05: USEPA Public Notice Sign located north of I-10 and along southern berm (view southwest)

Photograph 06: Warning sign along central berm (view northwest)

Photograph 07: Northern portion of central berm and Eastern Cell (view northwest)

Photograph 08: Armored cap in northern portion of Eastern Cell exposed during low tides (view southeast)

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Figure A-2
Site Photographs
Post-TCRA Semi-Annual Inspection Report (January 2015)
San Jacinto River Waste Pits Superfund Site

Photograph 09: Vegetation and warning sign along northern edge of Western Cell (view southwest)

Photograph 10: Intertidal area along northern edge of Western Cell (view northeast)

Photograph 11: Warning sign and vegetation along western berm (view southwest)

Photograph 12: Interior of Western Cell (view northeast)

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Figure A-3
Site Photographs
Post-TCRA Semi-Annual Inspection Report (January 2015)
San Jacinto River Waste Pits Superfund Site

Photograph 13: Fish consumption advisory signs located south of I-10 and west of San Jacinto River (view southwest)

Photograph 14: Signage and perimeter fencing south of I-10 and west of San Jacinto River (view northwest)

Photograph 15: USEPA Public Notice Sign located south of I-10 and west of San Jacinto River (view northeast)

Photograph 16: Access gate south of I-10 and west of San Jacinto River (view northeast)

Figure A-4
Site Photographs
Post-TCRA Semi-Annual Inspection Report (January 2015)
San Jacinto River Waste Pits Superfund Site

Photograph 17: Signage and perimeter fencing south of I-10 and east of San Jacinto River (view northeast)

Photograph 18: Perimeter fencing south of I-10 and east of San Jacinto River (view north)

Photograph 19: View during extreme low tide, the eastern cell along the San Jacinto River (view northeast)

Photograph 20: View during extreme low tide of the northeast corner along the San Jacinto River (view northeast)

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Figure A-5
Site Photographs
Post-TCRA Semi-Annual Inspection Report (January 2015)
San Jacinto River Waste Pits Superfund Site